This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claim 1: (currently amended) An isolated, greater than 95% pure population of mouse neuron-restricted precursor cells derived from mouse neural tubes at embryonic day 12.0 or mouse embryonic stem cells by E-NCAM immunoreactivity.

Claim 2: (original) A method for isolating a pure population of the mouse neuron-restricted precursor cells of claim 1 comprising:

(a) incubating mouse embryonic stem cells under differentiation-inducing conditions so that the cells differentiate; and

(b) isolating a pure population of mouse neuron-restricted precursor cells by immunoselecting E-NCAM$^+$ immunoreactive cells from the differentiated cells.

Claim 3: (original) A method for isolating a pure population of the mouse neuron-restricted precursor cells of claim 1 comprising:

(a) removing a neural tube from a mouse embryo at embryonic day 12.0;

(b) dissociating cells from the neural tube;

(c) plating the dissociated cells in a feeder-cell-independent culture on a substratum and in a medium containing fibroblast growth factor and chick embryo extract;

(d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth; and

(e) isolating a pure population of mouse neuron-restricted precursor cells by immunoselecting E-NCAM-immunoreactive cells from the cultured, plated cells.

Claim 4: (currently amended) An isolated, greater than 95% pure population of mouse glial-restricted precursor cells derived from mouse neural tubes at embryonic day 12.0 or mouse embryonic stem cells by $A2B5^+$ immunoreactivity.

Claim 5: (original) A method for isolating a pure population of the mouse glial-restricted precursor cells of claim 4 comprising:

(a) incubating mouse embryonic stem cells under differentiation-inducing conditions so that the cells differentiate; and

(b) isolating a pure population of mouse glial-restricted precursor cells by immunoselecting A2B5-immunoreactive cells from the differentiated cells.

Claim 6: (original) A method for isolating a pure population of the mouse glial-restricted precursor cells of claim 4 comprising:

(a) removing a neural tube from a mouse embryo at embryonic day 12.0;

(b) dissociating cells from the neural tube;

(c) plating the dissociated cells in a feeder-cell-independent culture on a substratum and in a medium containing fibroblast growth factor and chick embryo extract;

(d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth; and

(e) isolating a pure population of mouse glial-restricted precursor cells by immunoselecting A2B5-immunoreactive cells from the cultured, plated cells.

Claim 7: (original) An isolated, pure population of mouse neuroepithelial stem cells derived from mouse neural tubes at embryonic day 8.5 which proliferate and self renew in adherent feeder-cell-independent culture medium containing fibroblast growth factor and chick embryo extract.

Claim 8: (original) A method of isolating a pure population of the mouse neuroepithelial stem cells of claim 7 comprising:

(a) removing a neural tube from a mouse embryo at embryonic day 8.5;

(b) dissociating cells from the neural tube;

(c) plating the dissociated cells in a feeder-cell-independent culture on a substratum and in a medium containing fibroblast growth factor and chick embryo extract; and

(d) culturing the plated cells at a temperature and in an atmosphere conducive to cell growth to obtain a pure population of mouse neuroepithelial stem cells.